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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,557	01/11/2002	David S. Breed	ATI-290	9120
22846	7590	12/31/2003	EXAMINER	
BRIAN ROFFE, ESQ 11 SUNRISE PLAZA, SUITE 303 VALLEY STREAM, NY 11580-6170			ILAN, RUTH	
			ART UNIT	PAPER NUMBER

3616

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,557

Applicant(s)

BREED, DAVID S.

Examiner

Ruth Ilan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-13, 15-22, 24-26 and 28-47 is/are rejected.
- 7) ☒ Claim(s) 9, 14, 23 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I in Paper No. 4 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 47 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 47, line 4 recites "said propellant burns in a direction toward said top wall." This limitation inaccurately describes the invention, because the propellant burns in a direction toward the bottom wall. See for instance, claim 9.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, 5, 39, 40, 42 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin (US 3,606,377). Martin teaches (Figures 9 and 10) two embodiments of an inflator module for inflating an airbag including an elongate housing (38) and an elongate block of propellant with a uniform cross section in a longitudinal direction (22.) The housing includes an elongated opening (108) oriented in the same

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direction as the propellant. Regarding claim 39, the elongate housing includes bottom and side walls (as seen in Figure 10, or in an alternate embodiment, in Figure 8) and opposed lateral end walls (26) and the propellant is along the entire length of the bottom and side walls. Regarding claim 42, the opening is opposite the bottom wall.

6. Claims 1-4, 6, 16-20, 29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Cuevas (US 5,058,921.) Cuevas teaches (Figure 2) an inflator module including a housing (62) and an elongated block of propellant (40) in the housing. The propellant has a uniform shape, in that it is circular throughout its cross section. The length is more than 10 times a width, and housing includes openings. A screen is located (46, see Figure 4a and col. Col. 8, lines 20-41) opposite the propellant (that is on the other side of the housing wall from the propellant, as broadly claimed) and adjacent the openings. Regarding claim 16, Cuevas teaches an airbag housing (14) and a cover (12.) Regarding claims 29 and 32, the module is arranged along a passenger side of the vehicle.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

RI
12/8/03

Claims 3, 6, 16-20, 29-32, and 41^{and 44} are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 3,606,377) in view of Cuevas (US 5,058,921.) Regarding claim 6, Martin is discussed above, and fails to teach an elongate screen arranged

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adjacent the opening and opposite the propellant. Regarding the limitation "opposite", this term is sufficiently broad as to encompass orientations such as "facing." Cuevas teaches that it is known to provide elongate screens (see Figure 4a and 2) adjacent discharge openings in inflator housings to provide a means to cool and filter the hot combustion products during the inflation process so as to protect the air bag and occupants (see Cuevas, col. 8, lines 20-41.) It would have been obvious to one having ordinary skill in the art at the time of the invention to include a screen, as taught by Cuevas, with the inflator housing of Martin, so as to protect the airbag and occupants against the possibility of hot particulate burning the airbag during inflation. Regarding claim 3, Martin does not disclose the total length of the propellant, since the drawing that shows the length is broken (see Figure 9). However Martin does suggest that a long surface is useful because it provides for rapid and efficient combustion to inflate the airbag quickly (see Martin, col. 5, lines 59-69.) Cuevas teaches a propellant block that has a length that is greater than 10 times the width. It would have been obvious to one having ordinary skill in the art at the time of the invention to include a propellant block length that exceeds 10 times the width, as taught by Cuevas, in order to provide for rapid and efficient combustion to inflate the airbag quickly. Regarding claims 16 and 29, for those elements not previously discussed, Martin does not specifically show an airbag housing or a cover, since the air bag systems are shown as schematic locations. Cuevas teaches a housing (14) and a cover (12) used to protect the internal components of the system (airbag.) It would have been obvious to one having ordinary skill in the art at the time of the invention to include an airbag housing and cover, as

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taught by Cuevas, with the airbag system of Martin, in order to provide a complete system for the airbag that protects the air bag from damage. Regarding claims 29, 31 and 32, Martin teaches that the airbag can be mounted on the side (passenger's side) or in the ceiling. Regarding claim 30, the examiner takes Official Notice that it is known in the vehicle safety art to provide airbags in the location of the B-pillar to protect occupants in the case of a roll-over or side impact. It would have been obvious to one having ordinary skill in the art at the time of the invention to place the airbag module of Martin along the B-pillar, since Martin teaches that the airbag system is useful in a variety of locations, and since it is known to place modules along the B-pillar to protect occupants during roll-over events or side impacts.

9. Claims 7, 8, 10, 11, 15, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 3,606,377) in view of Hock et al. (US 5,483,896.) Martin is discussed above, and teaches all elements of the claimed invention except for the igniter material arranged on the propellant. Hock et al. teaches arranging ignitable material (24) on a propellant in order to provide a hermetic seal for the propellant and protect the propellant from degradation (see col. 2, lines 30-37.) It would have been obvious to one having ordinary skill in the art at the time of the invention to include the ignitable material bag of Hock et al. with the propellant of Martin, in order to provide a hermetic environment for the propellant and protect it from moisture. Regarding claims 8, 10, and 45, since the application of the igniter material will be around the propellant, none of the propellant will be in contact with the housing, and the propellant will be enclosed by both.

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10. Claims 12, 13, 21, 22, 24-26, 28, and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US 3,606,377) in view of Cuevas (US 5,058,921) and further in view of Hock et al. (US 5,483,896.) Martin in view of Cuevas is discussed above and teaches all elements of the claimed invention except for the igniter material arranged on the propellant. Hock et al. teaches arranging ignitable material (24) on a propellant in order to provide a hermetic seal for the propellant and protect the propellant from degradation (see col. 2, lines 30-37.) It would have been obvious to one having ordinary skill in the art at the time of the invention to include the ignitable material bag of Hock et al. with the propellant of Martin in view of Cuevas, in order to provide a hermetic environment for the propellant and protect it from moisture. Regarding claims 22, 34, 40, and 45, since the application of the igniter material will be around the propellant, none of the propellant will be in contact with the housing, and the propellant will be enclosed by both.

Allowable Subject Matter

11. Claims 9, 14, 23, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claim 47 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Monk and Nakajima et al. teaches igniter material of interest.

RF 12/18/03 Lenzen teaches an inflator of interest. McDonald teaches an elongated opening of interest.

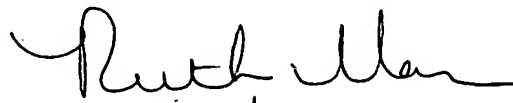
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 703-306-5956.

The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ruth Ilan
Examiner
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12/18/03

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